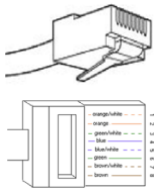


**ANSI E1.27-2: STANDARD WIRING PRACTICE FOR PERMANENTLY  
INSTALLED CONTROL CABLES FOR USE WITH ANSI E1.11 DMX512-A**

Pathway Connectivity recommends you download and follow the above standard from [https://tsp.esta.org/tsp/documents/published\\_docs.php](https://tsp.esta.org/tsp/documents/published_docs.php). Also available is E1.27-1.

In permanent installations, DMX512-A cables may be either one of two basic cable types: cables specified for use with EIA-485/EIA-485-A or EIA-422, and cables specified as EIA/TIA568 Category 5 or higher. Category cable meeting the requirements of a category higher than Category 5 is permissible.



<b>EIA-485 type cables (Belden 9729, Proplex, etc) Use Compression Screw Connectors</b>			
<b>XLR5 Pin</b>	<b>Wire Color</b>	<b>Function</b>	<b>Pathway Term CSC</b>
Pin 1	Shield	Data Common	1 (black)
Pin 2	Pair 1 (Black)	Data – (complement)	2 (green)
Pin 3	Pair 1 (Red)	Data + (true)	3 (red)
Pin 4	n/a	Not Assigned	
Pin 5	n/a	Not Assigned	
Shell	Not Connected		Not Connected

<b>ISO/IEC Category 5 cables Use Insulation Displacement Contact Connectors</b>				
<b>RJ45 T-568B</b>	<b>Wire Color</b>	<b>Function</b>	<b>Pathway Term IDC</b>	<b>XLR5 Equivalent</b>
1	White Orange	Data + (true)	3	Pin 3
2	Orange	Data – (complement)	2	Pin 2
3	White Green	Not Assigned		
4	Blue	Not Assigned		
5	White Blue	Not Assigned		
6	Green	Not Assigned		
7	White Brown	Data Common	1	Pin 1
8	Brown	Not Assigned		
Shell	Bare Silver	Not Assigned	Not Connected	Shell

Abbreviated notes from the ANSI Standard:

- RJ-45 Patch Bays should comply with all of the applicable requirements of E1.11, and the use of a Patch Bay with RJ-45 connectors that complies with E1.11-2004 Clause 7.3 does not relieve the system specifier or installer from the requirement to use 5-pin XLRs for all other user connection points.
- Shields and drain wires exposed by the process of preparing the cable for termination should be insulated from accidental contact with earth ground, data +, data - and data common.
- Do not use shield as data common unless the cable only has a single pair. In such cases, do not connect the shield to earth.
- Under no circumstance should any twisted conductors be connected to earth ground. Only connect the shield, if present, to earth ground at the transmitter if it is not being used as data common. See note above.
- Direct termination of a permanently installed cable on a male RJ-45 should not be allowed.

Please see the following page for Pathway Accessories, Inserts and Spare Connectors.

Pathway Connectivity offers many 'last mile' solutions for permanently installed cable plants. Listed below are just a few of the most popular products. Search our website for a complete listing of the following series.

- [PWACC RJPatch](#)
- [PWCON Connector](#)
- [PWINS Data Receptacles](#)

Pathway Accessories, Inserts and Spare Connectors	
PWACC RJPATCH Q4	Pathway Accessories, DIN RJ45 patch (3.5" of rail for 4), Qty (4)
PWINS RJ45EC PD	Insert, RJ45 EtherCON, Punch Down
PWINS RJ45EC RJ45R	Insert, RJ45 EtherCON, RJ45 Female (Rear)
PWINS XLR5F IDC5	Insert, XLR 5-Pin Female, 5-Pin Insulation Displacement Contact Connector
PWINS XLR5M IDC5	Insert, XLR 5-Pin Male, 5-Pin Insulation Displacement Contact Connector
PWCON SPARE CSC3 Q4	Connectors, Spare, 3-Pin Compression Screw Connector, Qty(4)
PWCON SPARE IDC3 Q4	Connectors, Spare, 3-Pin Insulation Displacement Contact Connector, Qty (4)
PWCON SPARE CSC5 Q4	Connectors, Spare, 5-Pin Compression Screw Connector, Qty(4)
PWCON SPARE IDC5 Q4	Connectors, Spare, 5-Pin Insulation Displacement Contact Connector, Qty (4)



Please download the [Pathway System Assembly Tool](#) from the Resources section of our website to draw custom configurations and export a full Bill of Materials



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[www.pathwayconnect.com](http://www.pathwayconnect.com) Project: North Country PAC



Field Assembly Bill Of Materials:		
Catalog:	Description:	Function:
PWFP G2 WH	Faceplate, 2 Gang, White	
PWINS XLR3M CSC5 WH	Insert, XLR 3-Pin Male, 5-Pin Compression Screw Connector, White	Corns
PWINS XLR5F 2RJ45EC IDC5 2RJ45R WH	Insert, XLR 5-Pin Female, 5-Pin Insulation Displacement Contact Connector RJ45 EtherCON, RJ45 Female (Rear), White	Lighting